

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of sending an alert to selected client devices in ~~in~~ a communications system including a server[[,]] ~~which is adapted to run a server application, a message router communicating with the server, a plurality of protocol gateways communicating with the message routers, and a network[[,]] which is adapted to couple the server[[,]] through the message routers and the protocol gateways[[,]] to client devices[[,]]~~ a method of sending an alert to selected client devices, the method comprising:

[[a))] generating the said alert with the said server application, the said alert including customer information;

[[b))] sending the said alert to the said message router;

[[c))] retrieving[[,]] ~~with the message router[[,]]~~ a station ID of the said client device based on the said customer information with said message router;

[[d))] determining a communication type of the said client device based on the said station ID;

[[e))] selecting one or more of the said plurality of protocol gateways based on the said communication type; and

[[f))] forwarding the said alert to the said selected one or more of the said plurality of protocol gateways;

[[g))] formatting the said alert with the said protocol gateway for the said selected client device; and

[[h))] forwarding the said formatted alert via the said network to the said selected client device.

2. (currently amended) The method of claim 1, wherein:
the said customer information includes at least one of a customer ID and a port number.

3. (currently amended) The method of claim 2, wherein:
~~step-d)~~ said step of determining a communication type further comprises searching a user table to obtain the said station ID associated with the said customer ID.

4. (currently amended) The method of claim 2, wherein:
~~step-d)~~ said step of determining a communication type further comprises searching a local cache of the said message router for the said station ID associated with the said customer ID.

5. (currently amended) The method of claim 2, wherein:
~~step-d)~~ said step of determining a communication type further comprises searching a local cache of the said message router and a device table for a first device associated with the said customer ID when both the said customer ID and port number are provided.

6. (currently amended) The method of claim 1, further comprising:

~~[[,]] if no station ID is retrieved[[,]]~~ returning an inactive customer message to the said server if no station ID is retrieved.

7. (currently amended) The method of claim 1, further comprising:

segmenting the said alert with the said selected protocol gateway into message segments before sending the said alert over the said network.

8. (currently amended) The method of claim 7, further comprising:

assembling the said message segments at the said client device.

9. (currently amended) The method of claim 1, wherein:
the said alert includes at least one of an alert message, a compression flag, an encryption flag, and an acknowledgement flag.

10. (currently amended) The method of claim 1, further comprising:

returning an acknowledgement to the said selected protocol gateway after receiving the said formatted alert message at the said client device.

11. (currently amended) The method of claim 10, further comprising:

forwarding the said acknowledgement from the said selected protocol gateway to the said server.

12. (currently amended) The method of claim 1, wherein:
the said customer information is a client information object.

13. (currently amended) The method of claim 12, wherein:
the said client information object includes a customer ID and a device ID.

14. (currently amended) The method of claim 13, wherein:
the said alert includes an active device only flag and wherein the said device ID can be set to all devices.

15. (currently amended) The method of claim 14, further comprising:

~~[[,]] if the active device only flag is set and the device ID is specified~~[[,]] searching a local cache of the said message router for the said station ID if said active device only flag is set and said device ID is specified.

16. (currently amended) The method of claim 15, further comprising:

~~[[,]] if the station ID is not located in the local cache~~[[,]] searching a user table for the said station ID if said station ID is not located in said local cache.

17. (currently amended) The method of claim 14, further comprising:

~~[[,]] if the active device only flag is set and the device ID is set to all devices~~[[,]] searching only the said user table for active client devices associated with the said customer ID if said active device only flag is set and said device ID is set to all devices.

18. (currently amended) The method of claim 14, further comprising:

~~[[,]] if the active device only flag is not set and the device ID is specified~~[[,]] searching a local cache of the said message router for the said station ID if said active device only flag is not set and said device ID is specified.

19. (currently amended) The method of claim 18, further comprising:

~~[[,]] if the station ID is not located in the local cache~~[[,]] searching a device table for the said station ID if said station ID is not located in said local cache.

20. (currently amended) The method of claim 14, further comprising:

~~[[,]] if the active only flag is not set and the device ID is set to all devices~~[[,]] searching a device table for client devices associated with the said customer ID if said active only flag is not set and said device ID is set to all devices.

21. (currently amended) The method of claim 1, further comprising:

providing each station ID retrieved in said step of retrieving a station ID ~~step c)~~ to the said server.

22. (currently amended) The method of claim 1, further comprising:

providing each station ID retrieved by the said message router to the said server, before forwarding the said alert to the said protocol gateway.

23. (currently amended) A method of sending alerts to client devices, comprising:

generating the said alert at a server, the said alert including a customer ID and a device ID;

forwarding the said alert to a message router;

locating with the said message router one or more station IDs based on the said customer ID and device ID;

determining with the said message router a communication type associated with each station ID;

forwarding the said alert to a protocol gateway associated with the said determined communication type; and

transmitting the said alert with the said protocol gateway over a network to the said client devices.

24. (currently amended) The method of claim 23, further comprising:

receiving the said alert with a transport layer of an application running on the said protocol gateway and sending the said alert from the said transport layer to client applications.

25. (currently amended) The method of claim 24, further comprising:

segmenting the said alert into message segments with the said protocol gateway.

26. (currently amended) The method of claim 25, wherein:
the said client application assembles the said message segments.

27. (currently amended) The method of claim 23, further comprising:

sending an acknowledgement from the said client device to the said protocol gateway once the said alert is received by the said client device.

28. (currently amended) The method of claim 27, further comprising:

~~[[,]] after receiving the acknowledgement from the client device[[,]]~~
sending the said acknowledgement from the said protocol gateway to the said server that forwarded the said alert after receiving said acknowledgement from said client device.

29. (currently amended) The method of claim 23, wherein:

the said alert comprises at least one of an alert message, a client information object including the said customer ID and device ID, message flags, compression flag and an encryption flag.

30. (currently amended) The method of claim 29, wherein the said messages flags specify at least one of:

whether ~~the~~ said server requires an acknowledgement message;

whether ~~the~~ said alert should be sent only if ~~the~~ said client device is currently active; and

whether ~~the~~ said protocol gateway should only attempt message delivery once.

31. (currently amended) The method of claim 23, wherein:

the said alert includes an active device only flag and ~~the~~ said device ID can be set to all devices.

32. (currently amended) The method of claim 31, wherein the said locating step comprises:

~~[[a)]] if the active device only flag is set and the device ID is specified~~[[,]] searching a local cache of the said message router for the said station ID if said active device only flag is set and said device ID is specified;

~~[[b)]] if the active device only flag is set and the device ID is set to all devices~~[[,]] searching only a user table for active client devices associated with the said customer ID if said active device flag is set and said device ID is set to all devices;

~~[[c)]] if the active device only flag is not set and the device ID is specified~~[[,]] searching a local cache of the said message router for the said station ID if said active device only flag is not set and said device ID is specified; and

~~[[d)]] if the active device only flag is not set and the device ID is set to all devices~~[[,]] searching a device table for client devices associated with the said customer ID if said active device only flag is not set and said device ID is set to all devices.

33. (currently amended) The method of claim 32, further comprising:

[[,]] for said steps of searching a local cache of said message router a) and e), searching a database for the said station ID if the said station ID is not found in the said local cache.

34. (currently amended) The method of claim 31, further comprising:

[[,]] ~~if device ID set to all devices~~[[,]] providing each device ID located to server if device ID is set to all devices.

35. (currently amended) The method of claim 31, further comprising:

[[,]] ~~if no device is located and the device ID is set to all devices~~[[,]] sending an inactive message to the said server if no device is located and said device ID is set to all devices, otherwise sending a customer not valid message.

36. (currently amended) The method of claim[[,]] 23, further comprising:

formatting the said alert for the said client device with the said protocol gateway.

37. (new) A method of sending an alert to selected client devices in a communications system, comprising:

generating said alert with a server application, said alert including customer information;

retrieving a station ID of said client device based on said customer information;

determining a communication type of said client device based on said station ID;

selecting one or more of a plurality of protocol gateways based on a communication type; and

forwarding said alert to said selected one or more of said plurality of protocol gateways; and

formatting said alert with said protocol gateway for said selected client device.

38. (new) The method of claim 37, wherein:

said customer information includes at least one of a customer ID and a port number.

39. (new) The method of claim 38, wherein:

said step of determining a communication type further comprises searching a user table to obtain said station ID associated with said customer ID.

40. (new) The method of claim 38, wherein:

said step of determining a communication type further comprises searching a local cache of a message router for said station ID associated with said customer ID.

41. (new) The method of claim 36, wherein:
said step of determining a communication type further comprises searching a local cache of a message router and a device table for a first device associated with said customer ID when both said customer ID and port number are provided.

42. (new) The method of claim 37, further comprising:
returning an inactive customer message to said server if no station ID is retrieved.

43. (new) The method of claim 37, further comprising:
segmenting said alert with said selected protocol gateway into message segments before sending said alert over said communications system.

44. (new) The method of claim 43, further comprising:
assembling said message segments at said client device.

45. (new) The method of claim 37, wherein:
said alert includes at least one of an alert message, a compression flag, an encryption flag, and an acknowledgement flag.

46. (new) The method of claim 37, further comprising:
returning an acknowledgement to said selected protocol gateway after receiving said formatted alert message at said client device.

47. (new) The method of claim 46, further comprising:
forwarding said acknowledgement from said selected protocol gateway to said server.

48. (new) The method of claim 37, wherein:
said customer information is a client information object.

49. (new) A system for sending an alert to selected client devices in a communications system, comprising:

means for generating said alert with a server application, said alert including customer information;

means for retrieving a station ID of said client device based on said customer information;

means for determining a communication type of said client device based on said station ID;

means for selecting one or more of a plurality of protocol gateways based on a communication type; and

means for forwarding said alert to said selected one or more of said plurality of protocol gateways; and

means for formatting said alert with said protocol gateway for said selected client device.

50. (new) The system for sending an alert to selected client devices in a communications system according to claim 49, wherein:

said customer information includes at least one of a customer ID and a port number.

51. (new) The system for sending an alert to selected client devices in a communications system according to claim 50, wherein:

said means for determining a communication type comprises a means for searching a user table to obtain said station ID associated with said customer ID.

52. (new) A system for sending alerts to client devices, comprising:

means for generating said alert at a server, said alert including a customer ID and a device ID;

means for forwarding said alert to a message router;

means for locating with said message router one or more station IDs based on said customer ID and device ID;

means for determining with said message router a communication type associated with each station ID;

means for forwarding said alert to a protocol gateway associated with said determined communication type; and

means for transmitting said alert with said protocol gateway over a network to said client devices.

53. (new) The system for sending alerts to client devices according to claim 52, further comprising:

means for receiving said alert with a transport layer of an application running on said protocol gateway and sending said alert from said transport layer to client applications.

54. (new) The system for sending alerts to client devices according to claim 53, further comprising:

means for segmenting said alert into message segments with said protocol gateway.

55. (new) The method of claim 54, wherein:

said client application assembles said message segments.